

Remediation Group

Mark Nations
Mining Properties Manager
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January 10, 2013

Mr. Jason Gunter Remedial Project Manager U.S. Environmental Protection Agency Region 7 - Superfund Branch 11201 Renner Blvd. Lenexa, KS 66219

Re: The Doe Run Company - Federal Mine Tailings Site Monthly Progress Report

Dear Mr. Gunter:

As required by Article XVII, Paragraph 73 of the Administrative Order on Consent (Docket No.VII-97-F-0009) for the referenced project and on behalf of The Doe Run Company, the progress report for the period December 1, 2013 through December 31, 2013 is enclosed. If you have any questions or comments, please call me at 573-518-0800.

Sincerely,

Mark Nations

Mining Properties Manager

Enclosure

c: Matt Wohl - TDRC (electronic only)

Mark Yingling - TDRC (electronic only)

Martin Kator - MDNR - DSP

Robert Hinkson - MDNR - HWP

Brandon Wiles -MDNR

Ty Morris - Barr Engineering

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Superfund

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Federal Mine Tailings Site

Park Hills, Missouri

Monthly Progress Report

Period: December 1, 2013 - December 31, 2013

1. Actions Performed or Completed This Period:

- a. Work continued on the task of stockpiling rock onsite. This work focused on stockpiling trail rock, Type 1 riprap, Type 2 riprap, Type 3 riprap, and Slope Protection Rock. These rock types are being stockpiled in the Borrow Area and in a staging area near the Former Chat Pile Area. As of the end of the period, work on this task continued.
- b. Work in Phase III of the Off Road Vehicle (ORV) Riding Area continued. This work focused on covering the trails and grids that exceeded the 600 ppm action level. As of the end of the period, work on this task continued.
- c. Work also continued in Phase III of the ORV Riding Area on the East Main Drainage Channel. This work focused on final grading and rocking the channel. As of the end of the period, work on this task has been completed.
- d. Work continued in the Borrow Pit Area. This work focused on covering the open areas with rock. As of the end of the period, work on this task continued.
- e. Work continued in the Former Chat Pile Area. This work focused on grading the ditches and placing cover material over the area. As of the end of the period, work on this task continued.
- f. Work continued in the Shaw Branch Creek Area. This work focused on rough grading the Sedimentation Ponds. As of the end of the period, work on this task continued.

2. Data and Results Received This Period:

- a. Attached are the lead monitoring results for the Missouri Department of Natural Resources Department of State Parks (MDNR-DSP) air monitor located near the ORV Riding Area for October 2013. Neither The Doe Run Company nor Barr Engineering were involved with siting this monitor, collecting the samples, processing the samples, evaluating the data, or verifying the accuracy of the data.
- b. During this period, the Ambient Air Monitoring Reports for September 2013 and Third Quarter 2013 were completed. Any issues identified in these reports are discussed below. A copy of these documents has been sent to your attention.

The September 2013 Ambient Air Monitoring Report noted the following:

- The action levels for lead and dust were not exceeded.
- No samples were taken with the TSP monitors on 9/2/13 due to the holiday.
- There was a QA blank filter for the Big River #4 and Big River #4 QA TSP and PM₁₀ monitors on 9/16/13.
- No sample was taken on the Big River #4 TSP monitor on 09/18/13 due to a mechanical failure. Upon discovery, this issue was addressed.
- No sample was taken on the Big River #4 TSP monitor on 09/20/13 due to an issue with the timer. Upon discovery, this issue was addressed.

The Third Quarter 2013 Ambient Air Monitoring Report noted the following:

- The action levels for lead and dust were not exceeded.
- No sample was taken with the Federal #4 TSP monitor on 07/03/13 due to a mechanical failure. Upon discovery this issue was corrected.

- No samples were taken with the TSP monitors on 07/04/13 and 07/05/13 due to the holiday.
- No samples were taken with the PM₁₀ monitors on 07/06/13 due to the holiday.
- A OA filter blank was run on the Federal #4 TSP monitor on 07/16/13.
- No sample was taken with the Federal #4 TSP monitor on 07/19/13 due to the filter being wet.
- A QA filter blank was run on the Federal #4 PM₁₀ monitor on 07/21/13.
- No sample was taken on the Big River #4 TSP monitor on 07/29/13 due to the run time of the monitor being outside of the acceptable limits. This issue has been addressed.
- Chain-of-custody date issues were corrected for the Big River #4 QA TSP monitor for filter ID numbers 8803575 and 8803551.
- No sample was taken with the Federal #1 (Water Plant) TSP monitor on 08/20/13 due to a mechanical failure. Upon discovery, this issue was corrected.
- No samples were taken with the TSP monitors on 9/2/13 due to the holiday.
- There was a QA blank filter for the Big River #4 and Big River #4 QA TSP and PM₁₀ monitors on 9/16/13.
- No sample was taken on the Big River #4 TSP monitor on 09/18/13 due to a mechanical failure. Upon discovery, this issue was addressed.
- No sample was taken on the Big River #4 TSP monitor on 09/20/13 due to an issue with the timer. Upon discovery, this issue was addressed.

3. Planned Activities for Next Period:

- a. Work in the ORV Riding Area will continue on the task of covering the trails and grids that exceeded the 600 ppm action level in the portion of the area included in the Phase III fencing plan.
- b. Work in the ORV Riding Area will continue on the East Main Drainage Channel. Work in this area will focus on rocking this channel.
- c. Work in the Borrow Pit Area will continue on covering the open areas with rock or soil.
- d. Work in the Former Chat Pile Area will continue. Work in this area will focus on rocking the channels that have been constructed.
- e. Work will continue on the task of stockpiling trail rock, Type 1 riprap, Type 2 riprap and Slope Protection Rock.

4. Changes in Personnel:

a. None.

5. Issues or Problems Encountered and the Resolution:

a. None.

Air Quality Monitoring Pb results for October 2013

St. Joe State Park

Primary

AQM Pb results for August 2013				AQM Pb results for September 2013					
St. Joe State Park				St. Joe State Park					
Primary				Primary					
ate Collected	Sampler:	Re	esult	Sample Number	Date Collected	Sampler:	Resu	ılt	
8/2/2013	#1 Primary	0.0095	μg/m³	AC10693	9/1/2013	#1 Primary	0.0398	μg/m³	
8/5/2013	#1 Primary	0.0055	µg/m³	AC10713	9/4/2013	#1 Primary	0.1797	μg/m³	
8/8/2013	#1 Primary	0.0169	µg/m³	AC10733	9/7/2013	#1 Primary	0.0314	µg/m³	
8/11/2013	#1 Primary	0.0435	µg/m³	AC10753	9/10/2013	#1 Primary	0.0485	µg/m³	
8/14/2013	#1 Primary	0.0518	µg/m³	AC10766	9/13/2013	#1 Primary	0.0566	µg/m³	
8/17/2013	#1 Primary	0.1548	µg/m³	AC10773	9/16/2013	#1 Primary	0.0087	µg/m³	
8/20/2013	#1 Primary	0.0484	µg/m³	AC10779	9/19/2013	#1 Primary	0.0077	µg/m³	
8/23/2013	#1 Primary	0.0286	μg/m³	AC10785	9/22/2013	#1 Primary	0.0568	µg/m³	
8/26/2013	#1 Primary	0.0576	μg/m³	AC10791	9/25/2013	#1 Primary	0.0067	μg/m³	
8/29/2013	#1 Primary	0.0604	µg/m³	AC10796	9/28/2013	#1 Primary	0.0140	µg/m³	
August Sum 0.477 August Average 0.0477			μg/m³	September Sum	0.4499 Septe	mber Average 0.04	499	μg/m³	
0 Actual: 10	August Data Cap	ture Rate	100.000%	Run Days Scheduled	: 10 Actual: 10	September Data	Capture Rate	100.000%	
	St. Joe S Print ate Collected 8/2/2013 8/5/2013 8/8/2013 8/11/2013 8/14/2013 8/17/2013 8/20/2013 8/23/2013 8/29/2013 8/29/2013 8/29/2013 8/29/2013 8/29/2013	St. Joe State Park Primary ate Collected Sampler: 8/2/2013 #1 Primary 8/5/2013 #1 Primary 8/8/2013 #1 Primary 8/11/2013 #1 Primary 8/14/2013 #1 Primary 8/14/2013 #1 Primary 8/20/2013 #1 Primary 8/20/2013 #1 Primary 8/23/2013 #1 Primary 8/26/2013 #1 Primary 8/29/2013 #1 Primary	St. Joe State Park Primary ate Collected Sampler: Re 8/2/2013 #1 Primary 0.0095 8/5/2013 #1 Primary 0.0055 8/8/2013 #1 Primary 0.0169 8/11/2013 #1 Primary 0.0435 8/14/2013 #1 Primary 0.0518 8/17/2013 #1 Primary 0.0518 8/20/2013 #1 Primary 0.1548 8/20/2013 #1 Primary 0.0484 8/23/2013 #1 Primary 0.0286 8/26/2013 #1 Primary 0.0576 8/29/2013 #1 Primary 0.0576 8/29/2013 #1 Primary 0.0604 August Average 0.0477	St. Joe State Park Primary ate Collected Sampler: Result 8/2/2013 #1 Primary 0.0095 µg/m³ 8/5/2013 #1 Primary 0.0169 µg/m³ 8/8/2013 #1 Primary 0.0169 µg/m³ 8/11/2013 #1 Primary 0.0435 µg/m³ 8/14/2013 #1 Primary 0.0518 µg/m³ 8/14/2013 #1 Primary 0.0518 µg/m³ 8/17/2013 #1 Primary 0.1548 µg/m³ 8/20/2013 #1 Primary 0.0484 µg/m³ 8/23/2013 #1 Primary 0.0286 µg/m³ 8/26/2013 #1 Primary 0.0576 µg/m³ 8/29/2013 #1 Primary 0.0576 µg/m³ 8/29/2013 #1 Primary 0.0604 µg/m³ 8/29/2013 #1 Primary 0.0604 µg/m³ 8/29/2013 #1 Primary 0.0604 µg/m³	St. Joe State Park Primary ate Collected Sampler: Result Sample Number 8/2/2013 #1 Primary 0.0095 µg/m³ AC10693 8/5/2013 #1 Primary 0.0169 µg/m³ AC10713 8/8/2013 #1 Primary 0.0169 µg/m³ AC10733 8/11/2013 #1 Primary 0.0435 µg/m³ AC10753 8/14/2013 #1 Primary 0.0518 µg/m³ AC10766 8/17/2013 #1 Primary 0.1548 µg/m³ AC10773 8/20/2013 #1 Primary 0.0484 µg/m³ AC10779 8/23/2013 #1 Primary 0.0286 µg/m³ AC10779 8/23/2013 #1 Primary 0.0576 µg/m³ AC10791 8/29/2013 #1 Primary 0.0576 µg/m³ AC10791 8/29/2013 #1 Primary 0.0604 µg/m³ AC10796 AC10796 AC10796	St. Joe State Park Primary ate Collected Sampler: Result 8/2/2013 #1 Primary 0.0095 µg/m³ AC10693 9/1/2013 8/5/2013 #1 Primary 0.0169 µg/m³ AC10713 9/4/2013 8/8/2013 #1 Primary 0.0435 µg/m³ AC10753 9/10/2013 8/11/2013 #1 Primary 0.0435 µg/m³ AC10753 9/10/2013 8/14/2013 #1 Primary 0.0518 µg/m³ AC10766 9/13/2013 8/17/2013 #1 Primary 0.1548 µg/m³ AC10773 9/16/2013 8/20/2013 #1 Primary 0.0484 µg/m³ AC10779 9/19/2013 8/23/2013 #1 Primary 0.0286 µg/m³ AC10779 9/19/2013 8/26/2013 #1 Primary 0.0576 µg/m³ AC10791 9/25/2013 8/29/2013 #1 Primary 0.0576 µg/m³ AC10796 9/28/2013 8/29/2013 #1 Primary 0.0604 µg/m³ AC10796 9/28/2013 8/29/2013 #1 Primary 0.0604 µg/m³ AC10796 9/28/2013 8/29/2013 #1 Primary 0.0604 µg/m³ AC10796 9/28/2013	St. Joe State Park Primary ate Collected Sampler: Result 8/2/2013 #1 Primary 0.0095 µg/m³ AC10693 9/1/2013 #1 Primary 8/5/2013 #1 Primary 0.0169 µg/m³ AC10713 9/4/2013 #1 Primary 8/8/2013 #1 Primary 0.0435 µg/m³ AC10733 9/7/2013 #1 Primary 8/11/2013 #1 Primary 0.0435 µg/m³ AC10753 9/10/2013 #1 Primary 8/14/2013 #1 Primary 0.0518 µg/m³ AC10766 9/13/2013 #1 Primary 8/14/2013 #1 Primary 0.1548 µg/m³ AC10766 9/13/2013 #1 Primary 8/20/2013 #1 Primary 0.0484 µg/m³ AC10779 9/19/2013 #1 Primary 8/23/2013 #1 Primary 0.0286 µg/m³ AC10779 9/19/2013 #1 Primary 8/26/2013 #1 Primary 0.0576 µg/m³ AC10795 9/22/2013 #1 Primary 8/29/2013 #1 Primary 0.0576 µg/m³ AC10791 9/25/2013 #1 Primary 8/29/2013 #1 Primary 0.0604 µg/m³ AC10796 9/28/2013 #1 Primary 8/29/2013 #1 Primary 0.0604 µg/m³ AC10796 9/28/2013 #1 Primary AC10796 9/28/2013 #1 Primary AC10796 September Average 0.0477	St. Joe State Park Primary ate Collected Sampler: Result 8/2/2013 #1 Primary 0.0095 µg/m³ AC10693 9/1/2013 #1 Primary 0.0398 8/5/2013 #1 Primary 0.0169 µg/m³ AC10713 9/4/2013 #1 Primary 0.0314 8/11/2013 #1 Primary 0.0435 µg/m³ AC10753 9/10/2013 #1 Primary 0.0485 8/14/2013 #1 Primary 0.0518 µg/m³ AC10753 9/10/2013 #1 Primary 0.0485 8/14/2013 #1 Primary 0.0518 µg/m³ AC10766 9/13/2013 #1 Primary 0.0566 8/17/2013 #1 Primary 0.0484 µg/m³ AC10773 9/16/2013 #1 Primary 0.0087 8/20/2013 #1 Primary 0.0484 µg/m³ AC10779 9/19/2013 #1 Primary 0.0077 8/23/2013 #1 Primary 0.0286 µg/m³ AC10785 9/22/2013 #1 Primary 0.0568 8/26/2013 #1 Primary 0.0576 µg/m³ AC10791 9/25/2013 #1 Primary 0.0067 8/29/2013 #1 Primary 0.0604 µg/m³ AC10796 9/28/2013 #1 Primary 0.0140 177 August Average 0.0477 µg/m³ September Sum 0.4499 September Average 0.04499	

Sample Number	r Date Collected	Site:	Result
AC12349	10/1/2013	St. Joe State Park - #1 Primary	0.0069 µg/m³
AC12369	10/4/2013	St. Joe State Park - #1 Primary	0.0050 μg/m ³
AC12389	10/7/2013	St. Joe State Park - #1 Primary	0.0206 µg/m³
AC12409	10/10/2013	St. Joe State Park - #1 Primary	0.0052 μg/m ³
AC12429	10/13/2013	St. Joe State Park - #1 Primary	0.1813 µg/m³
AC12449	10/16/2013	St. Joe State Park - #1 Primary	0.0047 µg/m³
AC12456	10/19/2013	St. Joe State Park - #1 Primary	0.0054 µg/m³
AC12462	10/22/2013	St. Joe State Park - #1 Primary	0.0821 µg/m³
AC12468	10/25/2013	St. Joe State Park - #1 Primary	0.0191 µg/m³
AC15113	10/28/2013	St. Joe State Park - #1 Primary	0.0094 µg/m³
AC15133	10/31/2013	St. Joe State Park - #1 Primary	0.0023 µg/m ³
	October Average 0.031	0909090909 μg/m³ Run Days Scheduled: 11	Actual: 11

Three month rolling average: 0.04 µg/m³

Three Month Data Capture Rate: 100%

October Data Capture Rate 100.000%

October Sum 0.342

Air Quality Monitoring Pb results for October 2013

St. Joe State Park

Primary

AQM Pb results for August 2013				AQM Pb results for September 2013					
St. Joe State Park				St. Joe State Park					
	Prima	ary				P	rimary		
Sample Number	Date Collected	Sampler:		Result	Sample Number	Date Collected	Sampler:	R	esult
AC08390	8/2/2013	#1 Primary	0.0095	μg/m³	AC10693	9/1/2013	#1 Primary	0.0398	μg/m³
AC08409	8/5/2013	#1 Primary	0.0055	μg/m³	AC10713	9/4/2013	#1 Primary	0.1797	µg/m³
AC08429	8/8/2013	#1 Primary	0.0169	μg/m³	AC10733	9/7/2013	#1 Primary	0.0314	µg/m³
AC08449	8/11/2013	#1 Primary	0.0435	μg/m³	AC10753	9/10/2013	#1 Primary	0.0485	µg/m³
AC08469	8/14/2013	#1 Primary	0.0518	μg/m³	AC10766	9/13/2013	#1 Primary	0.0566	µg/m³
AC08476	8/17/2013	#1 Primary	0.1548	μg/m³	AC10773	9/16/2013	#1 Primary	0.0087	µg/m³
AC08483	8/20/2013	#1 Primary	0.0484	μg/m³	AC10779	9/19/2013	#1 Primary	0.0077	µg/m³
AC08489	8/23/2013	#1 Primary	0.0286	μg/m³	AC10785	9/22/2013	#1 Primary	0.0568	µg/m³
AC08495	8/26/2013	#1 Primary	0.0576	μg/m³	AC10791	9/25/2013	#1 Primary	0.0067	µg/m³
AC08501	8/29/2013	#1 Primary	0.0604	μg/m³	AC10796	9/28/2013	#1 Primary	0.0140	µg/m³
August Sum	August Sum 0.477 August Average 0.0477 µg/r			µg/m³	September Sum 0.4499 September Average 0.04499 µg/r				
Run Days Scheduled	i: 10 Actual: 10 A	August Data Cap	ture Rate	e 100.000%	Run Days Scheduled	: 10 Actual: 10	September Data	Capture R	ate 100.000%
	Sample Numbe	r Date Coll	ected	Site:		Resu	lt		
	AC12349 10/1/2013		St. Joe State Park - #1 Primary 0			.0069 μg/m³			
	AC12369 10/4/2013		St. Joe State Park -	#1 Primary	0.0050	µg/m³			
	AC12389 10/7/2013		St. Joe State Park -	#1 Primary	0.0006	ua/m³			
			AC12409 10/10/2013		W I I I III I I I I	0.0206	µg/III		
			0/2013	St. Joe State Park -		0.0206			
		10/10	0/2013 3/2013		#1 Primary	0.0052	µg/m³		
	AC12409	10/10 10/13		St. Joe State Park -	#1 Primary #1 Primary		µg/m³ µg/m³		
	AC12409 AC12429	10/10 10/13 10/16	3/2013	St. Joe State Park - St. Joe State Park -	#1 Primary #1 Primary #1 Primary	0.0052 0.1813	µg/m³ µg/m³ µg/m³		
	AC12409 AC12429 AC12449	10/10 10/13 10/16 10/18	3/2013 5/2013	St. Joe State Park - St. Joe State Park - St. Joe State Park -	#1 Primary #1 Primary #1 Primary #1 Primary	0.0052 0.1813 0.0047 0.0054	hā/w ₃ hā/w ₃ hā/w ₃		
	AC12409 AC12429 AC12449 AC12456 AC12462	10/10 10/13 10/16 10/18 10/22	3/2013 5/2013 9/2013 2/2013	St. Joe State Park - St. Joe State Park - St. Joe State Park - St. Joe State Park - St. Joe State Park -	#1 Primary #1 Primary #1 Primary #1 Primary #1 Primary	0.0052 0.1813 0.0047 0.0054 0.0821	hā/w ₃ hā/w ₃ hā/w ₃ hā/w ₃		
	AC12409 AC12429 AC12449 AC12456	10/10 10/10 10/10 10/10 10/20 10/20	3/2013 5/2013 9/2013	St. Joe State Park - St. Joe State Park - St. Joe State Park - St. Joe State Park -	#1 Primary #1 Primary #1 Primary #1 Primary #1 Primary #1 Primary	0.0052 0.1813 0.0047 0.0054	hā/w ₃ hā/w ₃ hā/w ₃ hā/w ₃ hā/m ₃		

October Average 0.0310909090909 µg/m³ Run Days Scheduled: 11 Actual: 11

Three month rolling average: 0.04 µg/m³

Three Month Data Capture Rate: 100%

October Data Capture Rate 100.000%

October Sum 0.342